

FIG. 1
(Prior Art)

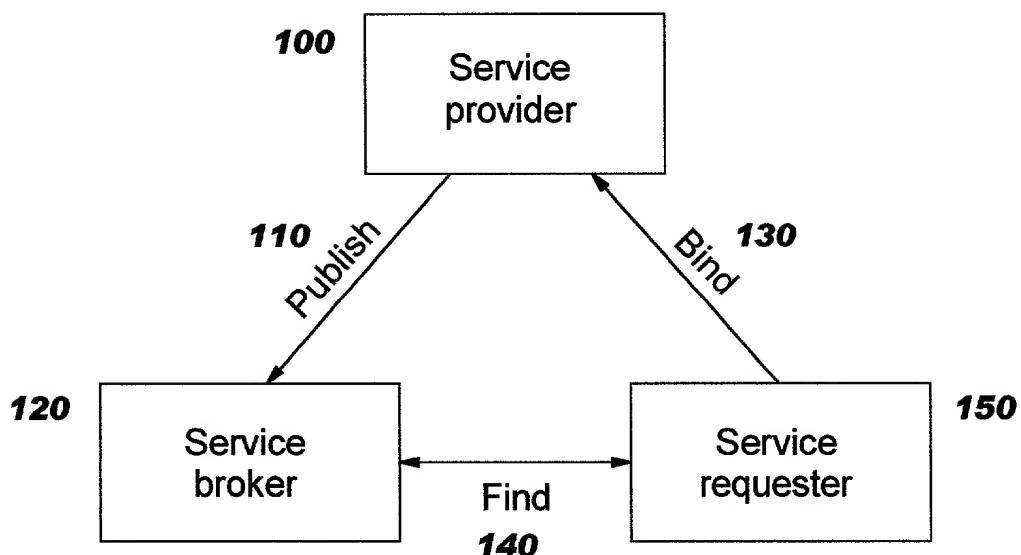


FIG. 2
(PRIOR ART)

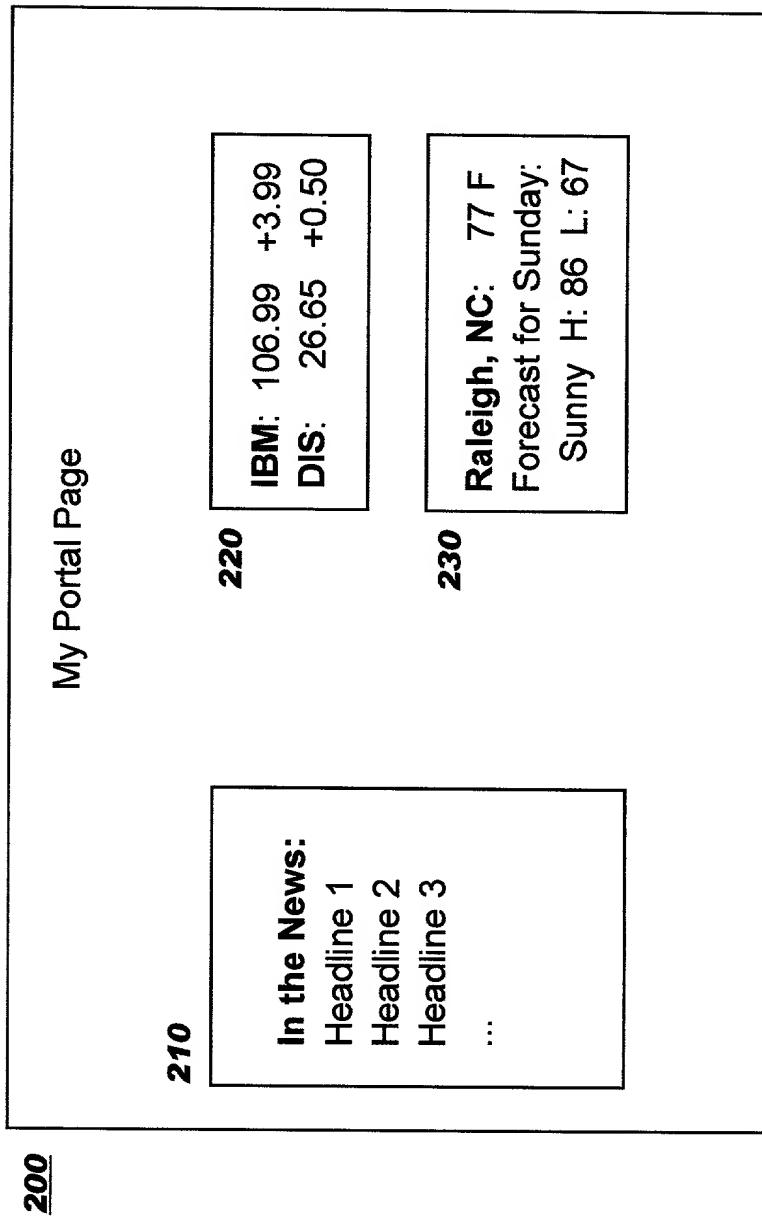


FIG. 3

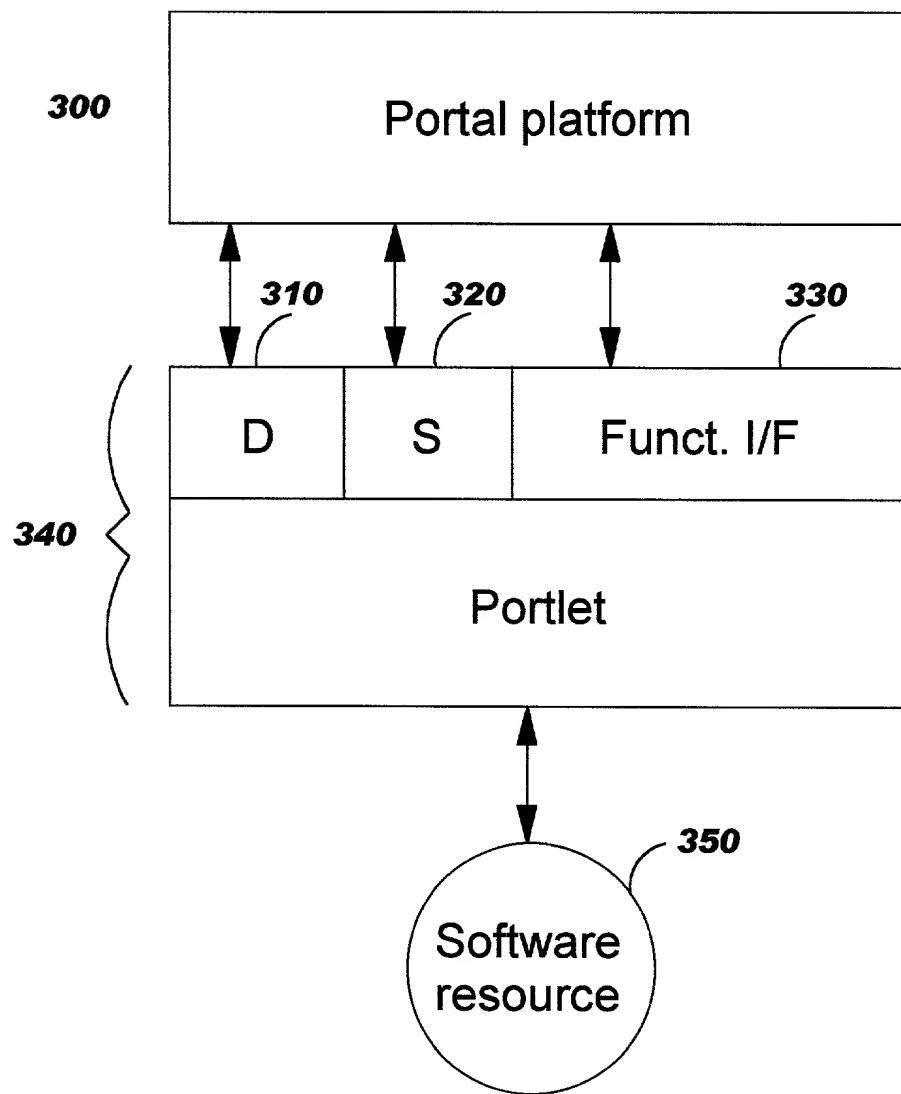


FIG. 4A

400

```
<?xml version="1.0"?>
<definitions
  name="Deployment"
  410   targetNamespace="http://portal-definitions/Deployment.wsdl"
        xmlns:tns="http://portal-definitions/Deployment.wsdl"
        xmlns:wsfl="http://schemas.xmlsoap.org/wsfl/"
        xmlns="http://schemas.xmlsoap.org/wsdl/">

  420 <message name="getDisplayNameInput">
        <part name="displayNameInput" element="xsd:nil"/>
    </message>
    <message name="getDisplayNameOutput">
        <part name="displayNameOutput" element="xsd:string"/>
    </message>
    <message name="getDisplayIcon16x16Input">
        <part name="displayIcon16x16Input" element="xsd:nil"/>
    </message>
    <message name="getDisplayIcon16x16Output">
        <part name="displayIcon16x16Output" element="xsd:image"/>
    </message>
    ...
  430 <portType name="DeploymentPortType">
        <operation name="getDisplayName">
            <input message="tns:getDisplayNameInput"/>
            <output message="tns:getDisplayNameOutput"/>
        </operation>
        <operation name="getDisplayIcon16x16">
            <input message="tns:getDisplayIcon16x16Input"/>
            <output message="tns:getDisplayIcon16x16Output"/>
        </operation>
        ...
    </portType>
</definitions>
```

FIG. 4B1

FIG. 4B2

FIG. 4B

450

```
<?xml version="1.0"?>
460 <definitions
      name="System"
      targetNamespace="http://portal-definitions/System.wsdl"
      xmlns:tns="http://portal-definitions/System.wsdl"
      xmlns:wsfl="http://schemas.xmlsoap.org/wsfl/"
      xmlns="http://schemas.xmlsoap.org/wsdl/">

470 <types>
      <schema xmlns="http://www.w3.org/2000/10/XMLSchema">
          <element name="Event">
              <complexType>
                  <all>
                      <element name="uuid" type="xsd:string"/>
                      <element name="type" type="xsd:string"/>
                      <element name="when" type="xsd:date"/>
                  </all>
              </complexType>
          </element>
      </schema>
</types>
...

```

FIG. 4B1

FIG. 4B2

TODAY'S DATE: 05/19/2000

FIG. 4B2

```
480 <message name="logEventReceive">  
    <part name="logEventInput" element="tns:Event"/>  
</message>  
<message name="reportInput">  
    <part name="reportUsageResource" element="xsd:string"/>  
    <part name="reportUsageQuantity" element="xsd:integer"/>  
</message>  
<message name="reportOutput">  
    <part name="reportReturnCode" element="xsd:string"/>  
</message>  
...  
490 <portType name="SystemPortType">  
    <operation name="logEvent">  
        <input message="tns:logEventReceive"/>  
    </operation>  
    <operation name="reportUsage">  
        <input message="tns:reportInput"/>  
        <output message="tns:reportOutput"/>  
    <operation/>  
...  
</portType>  
...  
</definitions>
```

FIG. 5

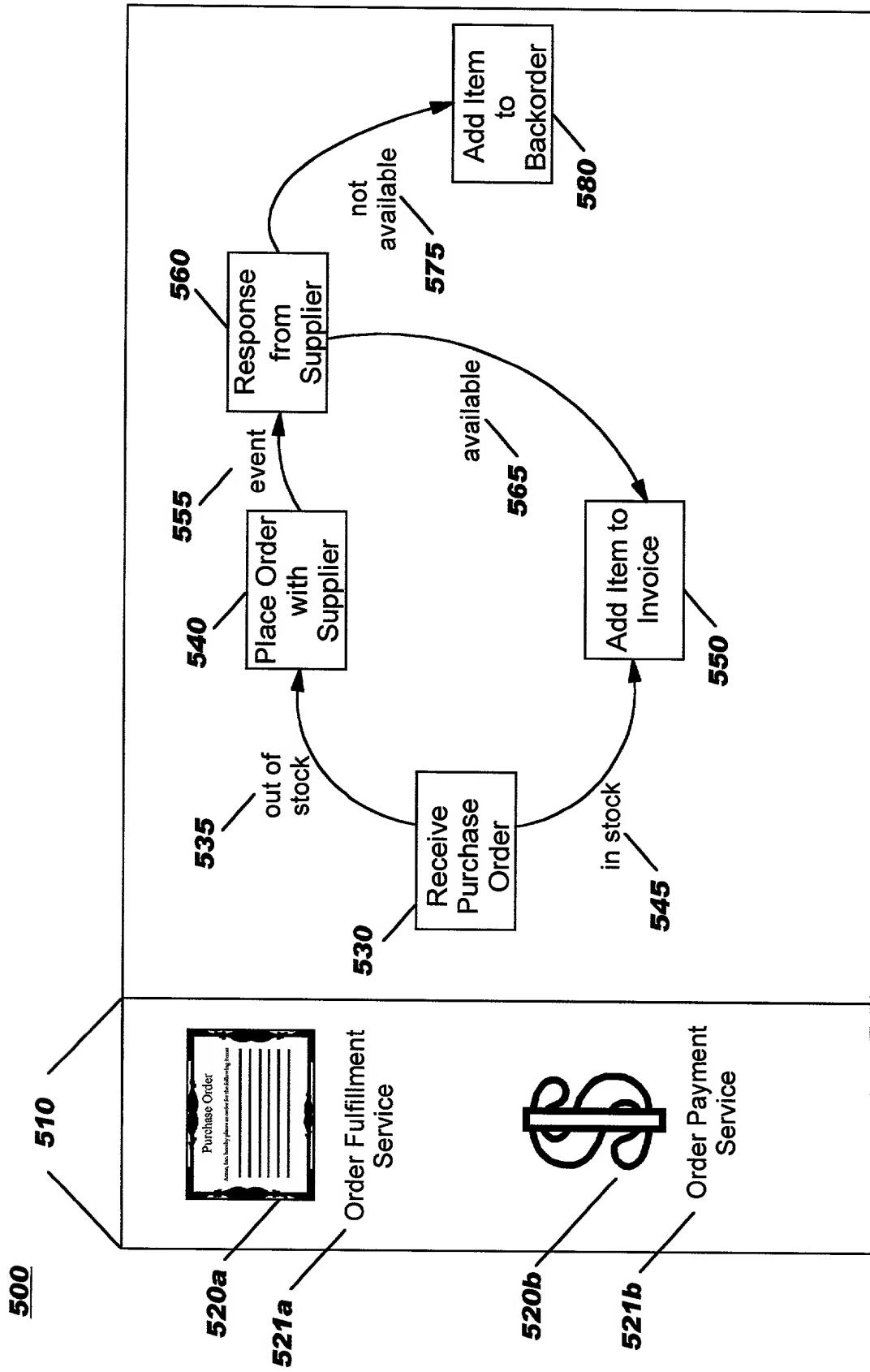


FIG. 6

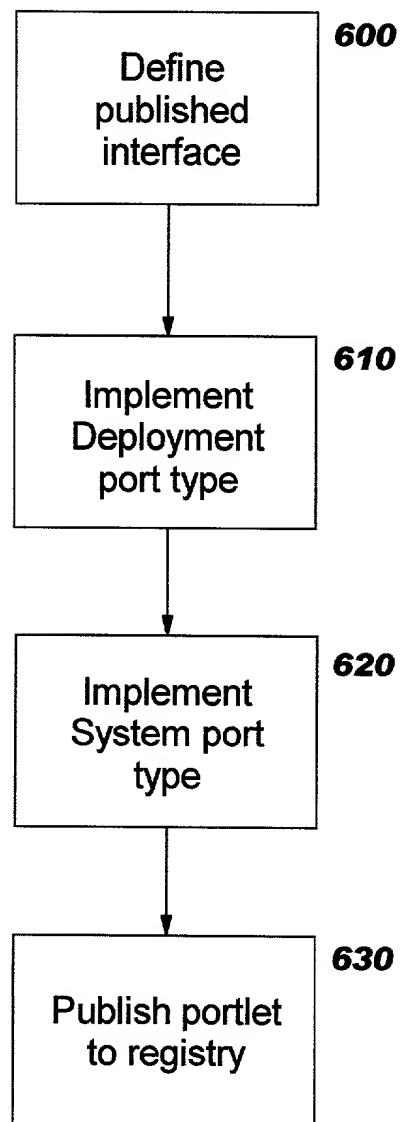


FIG. 7

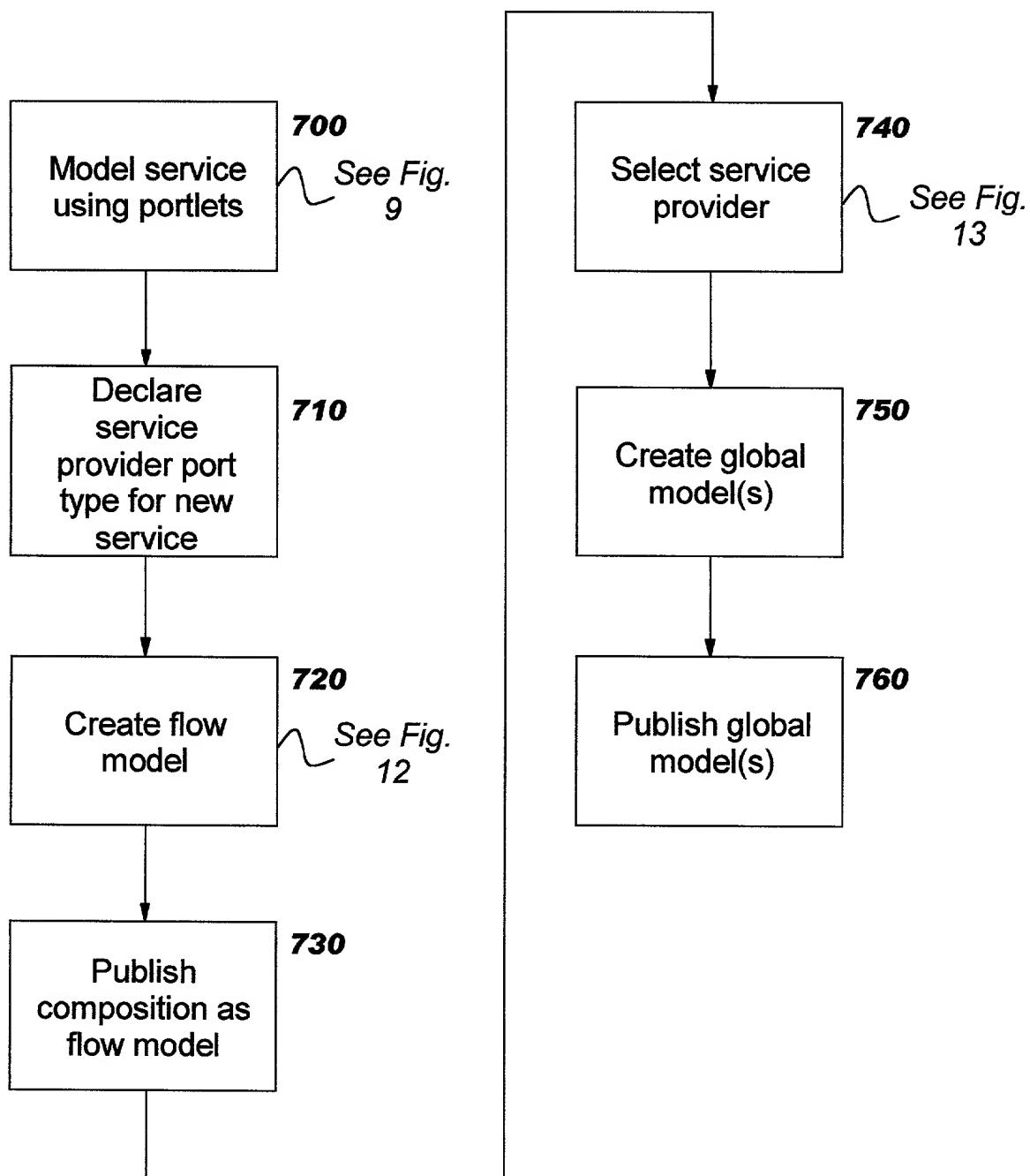


FIG. 8

800

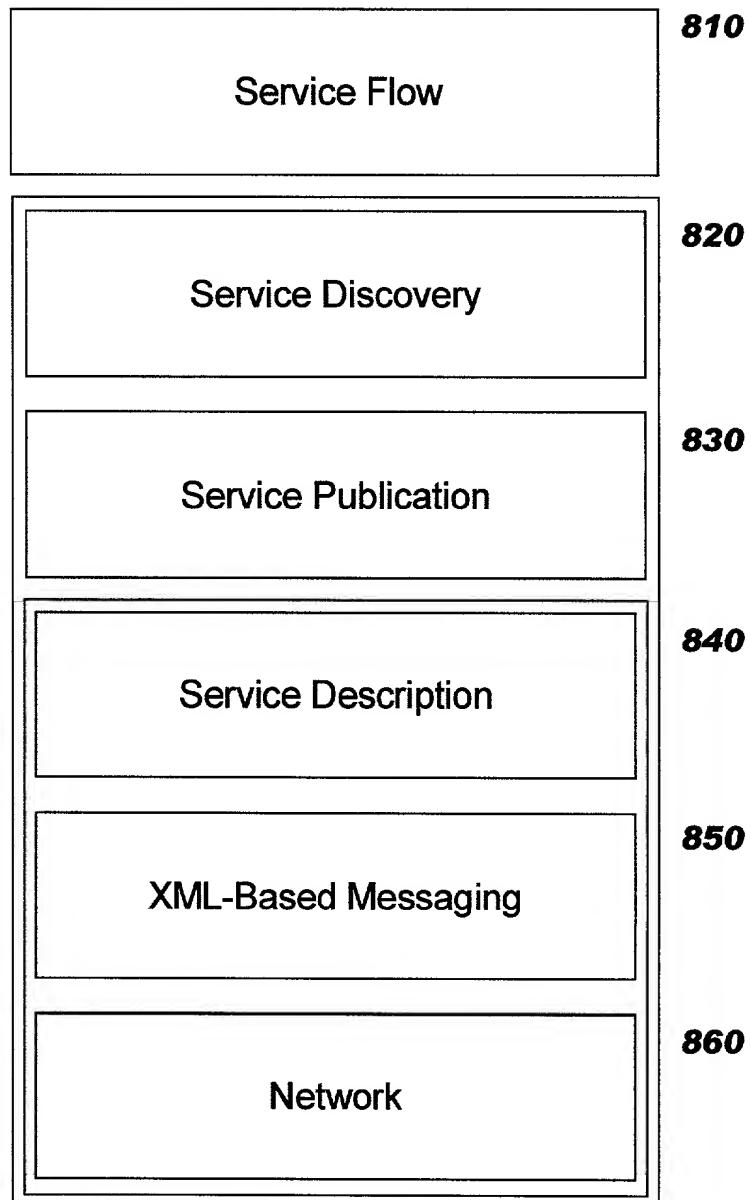


FIG. 9

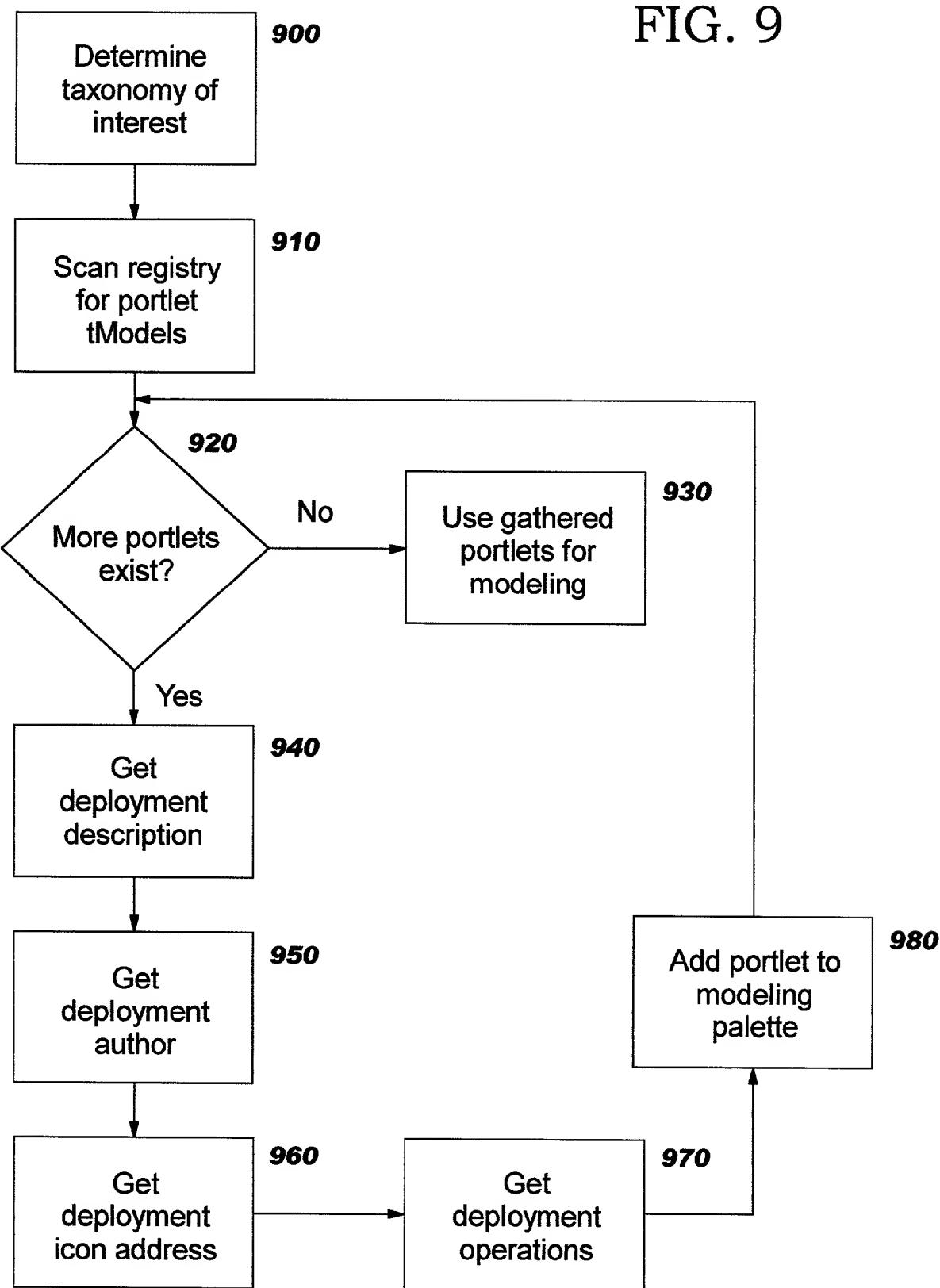


FIG. 10

1000

The diagram shows a rectangular box containing a WSDL XML snippet. The XML defines a tModel named "System Service" with a tModelKey of "uuid:12-4-4-8". It includes a description of the WSDL source document and a URL for the overview. A category bag contains a keyed reference to the same tModel with specific keyName and keyValue attributes. Two callout lines extend from the right side of the box to the right, labeled 1010 and 1020, pointing to the "WSDL for System Definition." and the "http://portal-definitions/System.wsdl" respectively.

```
<tModel authorizedName="..."  
operator="..."  
tModelKey="uuid:12-4-4-8">  
<name>System Service</name>  
<description xml:lang="en">  
    WSDL for System Definition.  
</description>  
<overviewDoc>  
    <description xml:lang="en"  
        WSDL Source Document.  
    </description>  
<overviewURL>  
    http://portal-definitions/System.wsdl  
</overviewURL>  
</overviewDoc>  
<categoryBag>  
    <keyedReference tModelKey="uuid:12-4-4-8"  
        keyName="uddi-org:types"  
        keyValue="wsdlSpec"/>  
</categoryBag>  
</tModel>
```

FIG. 11A

```
public integer processCreditTransaction  
(Integer cardNumber, float purchaseAmount, date expirationDate)
```

FIG. 11B

```
public Boolean acceptCreditCard  
(String accountNumber, string cardHolderName,  
float currentAmount, float outstandingBalance, date expirationDate)
```

FIG. 11C

```
public Boolean creditCardService  
(String accountNumber, integer cardNumber,  
string cardHolderName, float amount, float outstandingBalance,  
date expirationDate)
```

FIG. 12

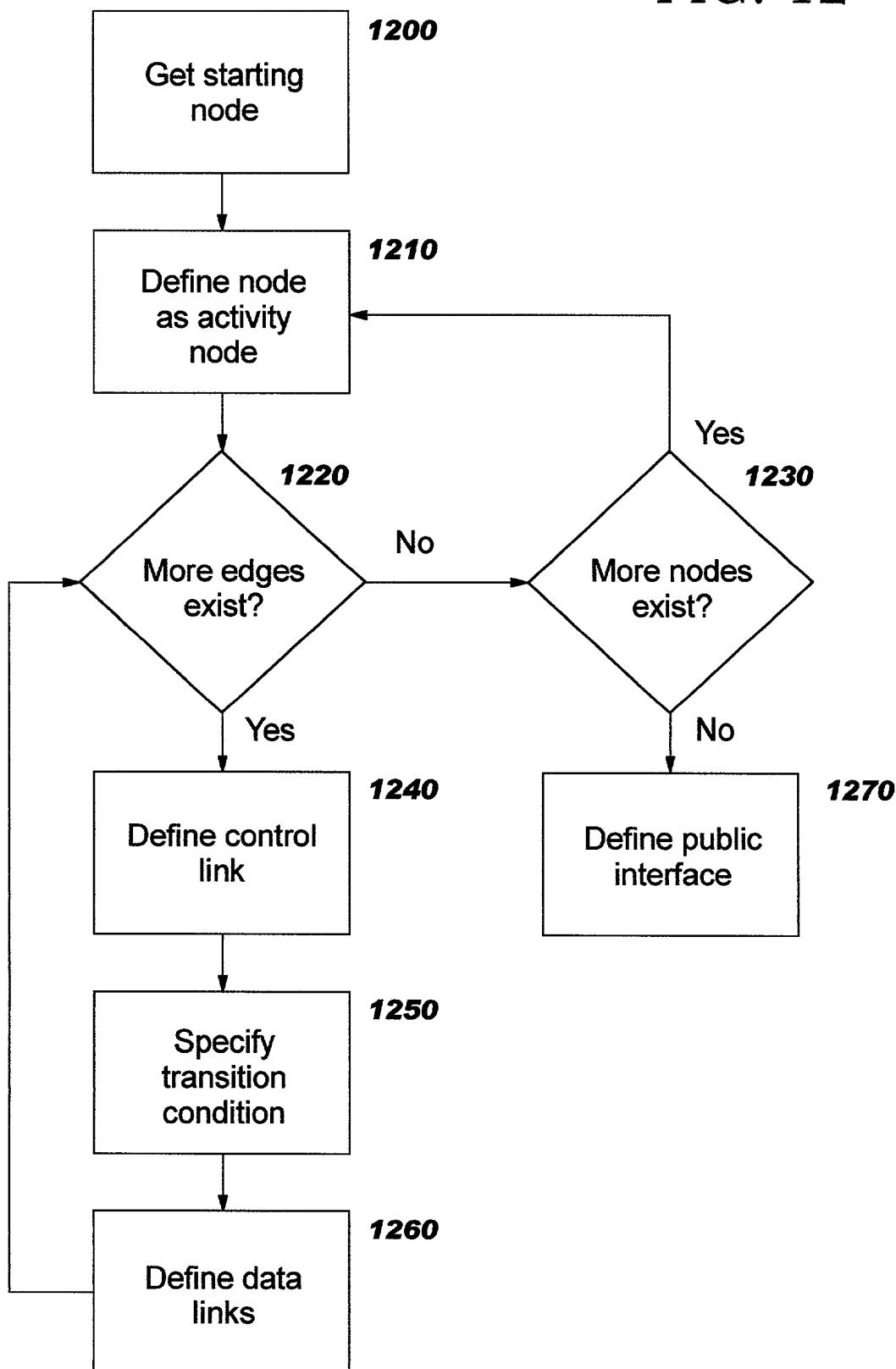


FIG. 13

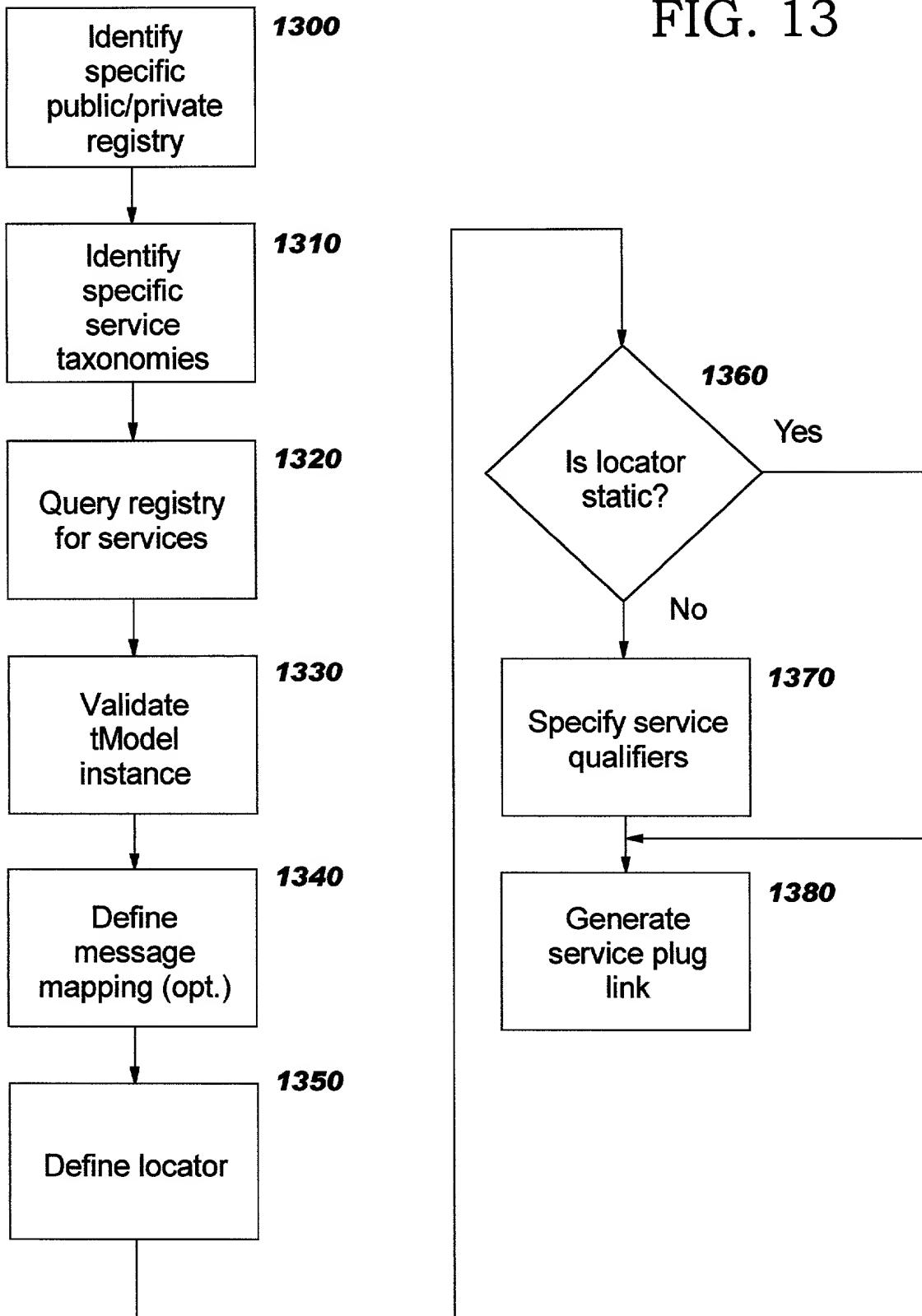


FIG. 14

1400

1410

```
<plugLink>
  <source serviceProvider="serviceSend"
    portType="sendPortType"
    operation="send"/>
  <target serviceProvider="serviceReceive"
    portType="receivePortType"
    operation="receive"/>
  <map sourceMessage="sendForm"
    targetMessage="receiveForm"/>
  <locator type="static"
    service="TheServiceReceiver.com"/>
</plugLink>
```

FIG. 15A

1500

```
<result>
  <firstName>Mike</firstName>
  <lastName>Wanderski</lastName>
</result>
```

FIG. 15B

1520

```
<map sourceMessage="theSourceMessage"
      targetMessage="submitNameMessage"
      sourcePart="firstName"
      targetPart="name"/>
```

FIG. 15C

```
<map sourceMessage="wsSourceMessage"
      targetMessage="submitNameMessage"
      converter="urn:thePortalURN"/>
```

FIG. 16

1600

1610

From	To	Convert-let
portlet-A	portlet-B	A-to-B
portlet-A	portlet-C	A-to-C
portlet-B	portlet-Z	B-to-Z
...

FIG. 17

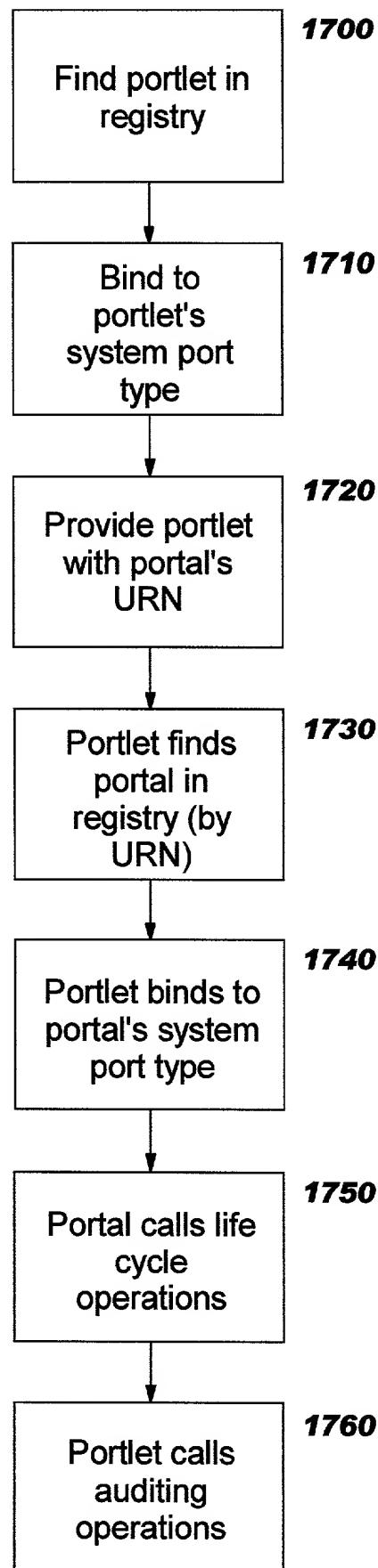


FIG. 18

